Patient Safety

Patient Safety Leadership WalkRounds™

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The explosion of interest in patient safety is a result of widely publicized sentinel events[1] and research[2] suggesting that health care is an error-prone industry. Although the industry has made phenomenal advances in improving the care delivered, advances in the safety of the delivery environment have not been comparable.[3]

Health care regulators and researchers are now seeking ways to remold health care to be safer in ways that are similar to the methods applied to the nuclear power industry after the Three Mile Island disaster[4] and the aviation industry after the Round Hill Incident landmark accident.[5] In the past 50 years, the aviation industry has succeeded in developing a culture that promotes safety largely through the influence of engineers, with their interest in human factors, and cognitive psychologists, with their interest in teamwork.[6–8] Passengers are drawn into this safety culture every time a commercial airplane departs. Flight attendants recite a familiar welcome speech that repeats the word *safety* multiple times over the airplane loudspeaker and that encourages passenger vigilance. Pilots are preoccupied with safety, which is reinforced by their workflow through the use of checklists, protocols, constraints, and industry culture. These workflow systems were developed using the knowledge of experts in human factors and the cognitive sciences—sciences that can also contribute to patient safety concepts in health care.

The patient safety movement is striving to develop a culture of safety whereby each individual, whether on the receiving or delivery end of care, is preoccupied with safety, is armed with the skills to evaluate his or her environment for potential harm, and is supported and rewarded for making appropriate changes. Patients should know that their care will be delivered as safely as

Article-at-a-Glance

Background: In the WalkRounds™ concept, a core group, which includes the senior executives and/or vice presidents, conducts weekly visits to different areas of the hospital. The group, joined by one or two nurses in the area and other available staff, asks specific questions about adverse events or near misses and about the factors or systems issues that led to these events.

Analysis of events: Events in the Walkrounds™ are entered into a database and classified according to the contributing factors. The data are aggregated by contributing factors and priority scores to highlight the root issues. The priority scores are used to determine QI pilots and make best use of limited resources. Executives are surveyed quarterly about actions they have taken as a direct result of WalkRounds™ and are asked what they have learned from the rounds.

Results: As of September 2002, 47 Patient Safety Leadership WalkRounds™ visited a total of 48 different areas of the hospital, with 432 individual comments.

Discussion: The WalkRounds™ require not only knowledgeable and invested senior leadership but also a well-organized support structure. Quality and safety personnel are needed to collect data and maintain a database of confidential information, evaluate the data from a systems approach, and delineate systems-based actions to improve care delivery. Comments of frontline clinicians and executives suggested that WalkRounds™ helps educate leadership and frontline staff in patient safety concepts and will lead to cultural changes, as manifested in more open discussion of adverse events and an improved rate of safety-based changes.

possible and that they are encouraged, even expected, to participate in that process.

Initial efforts in patient safety have included the Institute for Healthcare Improvement's (IHI's; Boston) multi-hospital collaboratives, in which teams learn about the characteristics of safe systems and how to achieve them, using Deming's rapid-cycle improvement theories.[9] A common characteristic of the teams that perform well, and, more importantly, sustain their performance, is the support of a champion in a high administrative position, in some cases the CEO. Leadership support is a necessity to enable change to occur.[10]

In 2000 IHI brought together a group of experts and organizations and charged them with the task of envisioning a health care system built around an ideal medication system—one that produced fewer adverse drug events, decreased harm to patients, and would function better in the future than the best possible one today.[10] Characteristics of the redesigned system would include fewer numbers of steps from medication ordering to administration; the use of known technologies in a safe, efficient, and cost-effective manner; and built-in safety nets that do not rely solely on individual vigilance. The group realized that building an ideal system required not only the nuts and bolts of a medication delivery system but also appropriate attitudes on the part of the senior leadership and health care workers. It was during these IHI meetings that the principal author conceptualized WalkRounds™ as a tool to connect senior leadership to patient safety and to inculcate safety ideas into the health care system.* He postulated that the information elicited during the WalkRounds™, if effectively analyzed, might be used to drive safety-based changes by creating a cycle of information–analysis–action–feedback. The end result would be a self-sustaining process that would continue to engage leadership, educate clinicians and managers, and lead to continuous improvement.

The WalkRounds™ concept was created with the following objectives:

1. Increase awareness of safety issues by all clinicians;
2. Make safety a high priority for senior leadership;
3. Educate staff about patient safety concepts such as nonpunitive reporting; and
4. Obtain and act on information elicited from staff about safety problems and issues.

Methods

Site

Partners HealthCare System (Boston) is a nine-hospital integrated delivery system, of which Brigham and Women's Hospital (BWH), a 700-bed tertiary care teaching hospital, is one of the founding members. BWH has a long history of patient safety–related research and quality improvement (QI), and patient safety operations were formally introduced in spring 2001, with the creation of the Patient Safety Team. The directors of patient safety for Partners and BWH agreed that WalkRounds™ could be a valuable tool for culture change, so it was initiated.

Patient Safety Team

The BWH Patient Safety Team includes a physician director of patient safety with expertise in medical error research [T.K.G.], a patient safety manager with a background in respiratory therapy and extensive experience in simulation [E.G.-B.], a pharmacist, and a research assistant [C.N.] The Patient Safety Team is integrated into the hospital quality and risk management structure. In addition to other activities, the team is responsible for coordinating the WalkRounds™ and analyzing the information obtained. The team also presents the information to executives and operations vice presidents (VPs).

Executive Buy-in

When the Partners and BWH patient safety directors suggested to BWH's executive leadership a pilot WalkRounds™, they stressed that the Walkrounds™ were intended to promote culture change, leadership and staff awareness of patient safety, and identification of active safety issues. The patient safety directors asked four executives—the president, chief operating officer, chief medical officer, and chief nursing officer—to participate, for they were all considered to have an

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* The WalkRounds™ trademark is owned by the principal author [A.F.] and the Health Research and Educational Trust (HRET), a subsidiary of the American Hospital Association. Partners HealthCare System and HRET are involved in a study in Massachusetts to evaluate the rounds and then disseminate the findings through HRET. The name was trademarked to prevent private consulting firms from using the name without appropriate attribution.

Table 1. Initial Questions Asked During Patient Safety Leadershp WalkRounds™

1. Were you able to care for your patients this week as safely as possible? If not, why not?

2. Can you describe how communication between caregivers either enhances or inhibits safe care on your unit?

3. Can you describe the unit's ability to work as a team?

4. Have there been any "near misses" that almost caused patient harm but didn't?

5. Is there anything we could do to prevent the next adverse event?

6. What do you think this unit could do on a regular basis to improve safety? For example, would it be feasible to discuss safety concerns, eg, patients with same name, near misses that happened, etc, during report?

7. When you make an error, do you always report it?

8. If you prevent/intercept an error, do you always report it?

9. If you make or report an error, are you concerned about personal consequences?

10. Do you know what happens to the information that you report?

11. Have you developed any personal practices that you do to specifically prevent making errors (memory aids, double-checking, forcing functions, etc)?

12. Have you discussed patient safety issues with your patients or their families?

13. Do patients and families voice any safety concerns?

14. What specific intervention from leadership would make the work you do safer for patients?

15. What would make these executive WalkRounds™ more effective?

interest in patient safety, an ability to communicate well with frontline staff, and a pivotal role in high-level decision making in the institution. After several months of piloting, the hospital VPs were also asked to join the rounds that took place in their areas of responsibility.

Formal training of the executives and hospital VPs was not undertaken. In the first few WalkRounds™, the patient safety directors explained the concept and framed the questions. As the executives became comfortable with the process, they began to participate and lead discussions more actively.

Design of WalkRounds™

The WalkRounds™ core group consisted of one of the senior executives and/or VPs, the patient safety manager, a senior director from the quality/safety department, the pharmacist assigned to the area, and a research assistant. WalkRounds™ are held weekly and visit different areas of the hospital, including the medical, surgical, and obstetrical wards; the emergency room; the pharmacy; and operating suites. The units' nurse managers are contacted 24 hours beforehand and asked to discuss in a nonthreatening manner with their staffs the questions to be asked. The units' physician leaders are also notified and asked to join the rounds. On the group's arrival to an area, the nurse manager is contacted and asked to help find one or two nurses in the area who can spare 15–30 minutes. In addition, any other available staff (attending and resident physicians, pharmacists, and patient care assistants) are invited to join the group. The nurse manager is encouraged to observe and participate in the rounds to learn the concepts. The discussion is held on the floor in an open area to increase visibility. Each WalkRound™ lasts approximately 1 hour.

During the WalkRounds™, specific questions are asked about adverse events or near misses and about the factors or systems issues that might have led to these events. Specific questions are listed in Table 1 (left). Comments are recorded on a worksheet. At the end of the rounds, either the executive or the patient safety director briefly describes a few of the important concepts that will lead to a safer environment. Examples include a brief discussion about teamwork, open communication, and the importance of reporting and talking about near misses. In addition, participants are asked to tell two other staff members about the WalkRounds™. Later in the day, the patient safety data manager e-mails a message of thanks to the participants.

Peer Review Protection

A key factor for successful implementation is that the discussions during the rounds and all analysis that occurs afterward must be protected as peer review discussion. The WalkRounds™ must be tied in to the peer review structure, and results must be reported to a peer review committee. At BWH, WalkRounds™ information is reported annually to the Clinical Improvement

Committee, a peer review committee of hospital, clinical, and administrative leadership. Also, a set of reporting policies is in place to help the participants develop a sense of "psychological safety,"[11] allowing them to speak openly during the rounds.

Analysis of Events

Events captured in the WalkRounds™ are entered into a database and classified according to the contributing factors. Events can have multiple contributing factors, which are divided into Vincent's[12] four categories—teamwork, hardware, and individual, and patient components—and then subcomponents (for example, inadequate staffing, or poor communication between providers). In addition, each event is given a priority score (0–100) on the basis of the potential or actual impact and frequency of occurrence . The data are aggregated by contributing factor and priority score to highlight the root issues. This internal organization of the data helps us provide the responsible department manager and vice president with a more thoughtful action item recommendation and priority list.

Scoring examples. One WalkRounds™ episode elicited a story from a nurse about an anticoagulated patient who had fallen. Although the patient was asymptomatic, the nurse was appropriately worried about the risk of other trauma. She had called the physician she thought was responsible for the patient but had not received a timely response. She had paged the wrong physician. Numerous telephone calls had been required to identify the physician on call, resulting in a delay in evaluation and treatment of the patient and lost productivity on the part of the nurse. It is uncommon for nurses not to know the correct covering physician. Therefore, this episode was categorized as "Lack of consistent communication regarding physician coverage" and given a priority score of 25, signifying rare occurrence but with some potential for significant harm.

Another common WalkRounds™ issue was the inability to find supply items needed for patient care. The caretaker would have to leave the floor to look in other supply areas while the patient would have to wait for his or her return. This made care of the patient inefficient, and some RNs felt that they spent up to 30% of their time searching for equipment. These comments were categorized as "Lack of equipment availability and repair processes" and "Inefficient materials management support and logistics" and scored with a priority of 50, but because of some potential for harm and because of frequent occurrence.

Involvement of Hospital Leadership

A prioritized summary report of events identified during WalkRounds™ was created monthly with associated priority scores (Figure 1, p 20). This summary was sent to the executive leaders and VPs monthly. The priority scores were used to determine QI pilots and make best use of limited resources. The executives were assigned responsibility for various items and were required to update the Clinical Operations Group, a joint committee of VPs and executives, on a quarterly basis on progress to address identified problems. This process was set up to ensure follow-up of patient safety items. An important component of this delineation of responsibility is to make it clear that although the Patient Safety Team facilitates the WalkRounds™, ultimate accountability for addressing problems lies with all leadership. The WalkRounds™, no longer a pilot study, became part of the quality process of the institution.

For example, nurses frequently commented about the substantial non-patient-care time and attention they spent looking for supplies, which increased the priority score because of an increase in the number of occurrences. When these comments were brought forward to the director of materials management and the appropriate VP, the action item "Improve materials management support and logistics" was developed. Materials management implemented rapid-cycle improvement projects on a few patient care units, where regular meetings were scheduled between an assigned materials management supervisor and the unit's operations manager and nurse manager. For example, on all these units, the "par levels" (the average levels determined by experience to meet the unit's needs) were listed on the outside of the bins for the stock personnel and nurses to see.

Frontline nurses also frequently commented on delays in receiving medications. These comments were sent to the director of pharmacy and to the chief nursing officer, who probed further as to the

Example of WalkRounds™ Report to Executives

Our plan includes:

e-mailing the reporter with a confirmation of issues

developing a coordinated approach to prioritize the issues in terms of actual or potential harm to patients

communicating the issues to you in a timely manner

facilitating the discussion of the issues at HLC quarterly

communicating any improvement made to you and the reporter

The list below describes the issues raised during WalkRounds™ in aggregate, lists the responsible VP and assigns a risk priority score derived from the potential risk to patients multiplied by the number of times that the issue was raised.

These four items represent the overriding concerns of the frontline staff:

Overall issues	Total Priority Score
Lack of equipment availability and repair processes	50
Inefficient materials management support and logistics	50
Lack of consistent communication regarding physician coverage	35
Insufficient and Inefficient workspace	30

Items by service:

L&D/NICU	Total Priority Score
Reduce the wait time for medications by improving the admitting process from specialty floors to other locations	50
Reduce the need to transport infants for tests or treatments	50
Investigate the utility of a Suremed in the NICU/nurseries	20

Neurology	Total Priority Score
Increase monitoring of Neurology patients during the off shifts; new monitors have been purchased, but not installed.	50

Patient Transport	Total Priority Score
Improve wait time for patient transport	80

Materials Management	Total Priority Score
Develop mechanism to communicate product replacements to the nursing units	10
Create/buy a database listing all latex products that is readily available to the nursing staff	10

Environmental services	Total Priority Score
Investigate a system for routine cleaning hem/onc floors (special considerations for negative air flow and telemetry)	5

Food Services	Total Priority Score
Arrange for a late (after 11pm) pickup of CWN kitchen trays	5

Lab	Total Priority Score
Improve turnaround time for stat labs	60
Increase the number of available tubes	5

Nursing	Total Priority Score
Decide on new user friendly/lightweight infusion pumps; in progress	75
Investigate system for alerting Nursing for eloping patients	10

Pharmacy	Total Priority Score
Improve communication regarding delays in obtaining meds	60
Review Omnicell machines for under-over dispensing	30
Improve the PCA OE templates with anesthesia commitment	15

Figure 1. *A prioritized summary report of events identified during WalkRounds™ is created with associated priority scores and sent monthly. HLC, Hospital Leadership Committee; VP, vice president; L&D, Labor and Delivery; NICU, neonatal intensive care unit; CWN, Center for Women and Newborns; PCA, patient-controlled analgesia; OE, order entry.*

Table 2. The Most Common Contributing Factors (Category, Component, Subcomponent) for the 432 Individual Comments Received by August 31, 2002

Work Environment

- Building and Design—Functionality (50 comments)*
- Equipment and Supplies—Functionality (49 comments)
- Staffing—(Un)availability (48 comments)
- Equipment and Supplies—Unavailability (41 comments)
- Equipment and supplies—Maintenance management (30 comments)
- Environment—Movement of patients between wards/sites (26 comments)
- Time factors-Delays (25 comments)
- Equipment and supplies—Computer issues (19 comments)†

Team

- Verbal communication—Communication between professions (33 comments)

Task

- Task design—Can a specific task be completed by a trained member of staff in adequate time and correctly (25 comments)

*For example, 50 comments were classified into the Work Environment category, Building and Design component, Functionality subcomponent.

†Equipment and supplies was not one of the initial categories developed by Vincent (Vincent C: Framework for analyzing risk and safety in clinical medicine. *BMJ* 316:1154–1157, 1998.)

conditions under which the nurses were experiencing delays and then identified two interventions. One intervention was to improve communication between the floor nurse and pharmacist (by reinforcing text paging), and the other was to introduce new nurses and new pharmacists to their respective roles. All new nurses now spend one-half day of pharmacy orientation to understand the workflow.

Thematic issues came up continuously in varying ways during the WalkRounds™, which, as suggested by literature from other industries, should eventually elicit four to ten major thematic issues that are core problems faced by the industry.[13–16] We now begin the WalkRounds™ with a quick summary of some of these themes, which allows staff to bring up different issues or perspectives. For example, we might begin by mentioning equipment and staffing as themes and then encourage staff to bring up new and different issues that we may not have heard about before (for example, communication, handoffs).

Feedback to Staff

The unit manager, the executive on the rounds that day, and possibly two or three other quality or other middle managers hear firsthand the concerns and incidents mentioned in the Walkrounds™.[1] One or more of those persons may choose to take localized action to address a problem, and patient safety personnel also refer themes to VPs, clinical chiefs, or other hospital leaders for action. The patient safety personnel track interventions by contacting each of those individuals for updates and communicate this follow-up information to frontline staff and senior leadership. The goals are to supply accurate data back to the frontline staff and to ensure completion of improvement tasks.

Results

WalkRounds™ Summary

As of September 2002, 47 Patient Safety Leadership WalkRounds™ had visited a total of 48 different areas of the hospital. By the end of 2002, nearly every inpatient area of the hospital will have been visited. A total of 432 individual comments were collected in these rounds, with each comment classified according to the Vincent system noted earlier.[12] The most common classifications for these comments are provided in Table 2 (left); some comments fell into multiple categories.

Of the 432 comments, 17 had priority scores of 25 or higher, defined as events involving minor injury or complaint and low frequency. Ten of these had scores of 40 or higher, defined as events involving intensive or invasive treatment and/or events occurring with high frequency.

Changes as the result of WalkRounds™ include

1. installation of electronic doors in the cardiac intensive care unit;

2. establishment of a pharmacy and nursing orientation program;

3. communication of the Web-based attending physician on call system;

4. rapid-cycle improvement projects with material management;

5. improved inpatient flow with respect to cervical spine clearance in the surgical/burn trauma intensive care unit;

6. increased number of IV poles and bedside tables; and

7. purchase of a mechanical lift for obese patients.

Ongoing projects include

1. investigation of a perceived increase in lab delays;

2. investigation of a perceived increase in radiology delays;

3. investigation of a perceived increase in transport time;

4. investigation of safe infant transport for procedures; and

5. completion of the ideal magnetic resonance imaging (MRI) safety system.

Survey of Participants

Participants in the WalkRounds™ are surveyed about 2 weeks after the exercise and are asked whether the rounds have had an effect on their care of patients, their willingness to discuss potential or actual adverse events, and whether they have talked about WalkRounds™ concepts and issues with other employees. The questions asked include the following:

1. Since WalkRounds™, has your reporting of incidents increased?

2. Since WalkRounds™, have you had conversations with your peers about patient safety?

3. Do you feel that senior management takes your comments seriously?

4. Is there a way we could improve WalkRounds™ to make it more beneficial to you?

Staff survey responses have shown the following results:

1. Reporting hasn't increased, but discussions of safety issues have increased;

2. Senior management takes comments seriously but needs to communicate more;

3. Safe patient care has always been a priority despite frustration about supplies, and the pharmacy; and

4. Staff need to know in advance when rounds will occur.

Both the Patient Safety Team and the VPs are charged with informing frontline staff about actions taken to address problems. Clinicians and employees who participate in the rounds are informed by e-mail when information they have given leads to specific corrective or preventive actions. The team asks the leadership to let it know if the interventions make a difference. In addition, leadership provides feedback at various staff meetings. The team plans to report successful WalkRounds™-based interventions in several of the hospitals publications.

Survey of Executives

Executives are surveyed quarterly about actions they have taken as a direct result of WalkRounds™ and are asked what they have learned from the rounds. The survey is a simple set of questions:

1. Have you had conversations with your peers about the rounds?

2. Have you taken any action as a result of these rounds?

3. What is the most important thing you learned during WalkRounds™?

The survey also elicits feedback from executives about ways to improve the rounds. Initial executive survey responses have shown the following results:

1. Information that leads to action is the most important kind;

2. Communication regarding safety issues must be reliably constant from staff nurses through nursing leadership; and

3. Sharing responsibility for issues raised is important.

BWH is a large organization, and we are finding that leadership is often aware of initiatives that are under way that the staff nurses do not know about. Constant communication and feedback are essential so that staff understand that their concerns are being heard. In addition, the same messages need to be transmitted by all leadership to drive culture change. Sharing responsibility really means that no one can pass the buck; it is staff members' responsibility to report and bring issues to leadership's attention and then leadership's responsibility to take action.

Learning

The Patient Safety Leadership WalkRounds™ have been refined steadily since their inception in January 2001. Our goals were to initiate WalkRounds™ that would both teach and inculcate patient safety into clinical care. Information obtained during the rounds would be analyzed systematically for the antecedent and contributing factors that led to patient harm, and actions would be designed to address those factors. We hoped that leadership and staff thinking together about potential changes could facilitate a new perspective on the local health care environment. Participants in the rounds—who include hospital leaders, clinicians, pharmacists, nurses in all phases of training, and medical students—are, hopefully, able to gain new insights into patient safety including

l. learning to think about system versus individual involvement in adverse incidents;

2. understanding and applying the concepts from cognitive psychology to how we process information and how we make errors;

3. understanding what encompasses good teamwork;

4. understanding what encompasses effective communication; and

5. developing strategies for understanding and preventing errors.

We have found that staff are very receptive to the WalkRounds™ and are eager to participate and provide items for discussion. Interestingly, different senior leaders bring different skills to the rounds.

Numerous small changes have been made to the rounds, at times as the result of personal preference on the part of a particular executive, and in other instances in an attempt to improve their effect. For example, in the first few WalkRounds™, a floor or hospital location was chosen only on the day of the rounds in order to ensure spontaneity. A concern soon arose because some managers felt that they had not been included in the planning of the rounds in their locations. The senior executives requested that floors be chosen the day before the rounds and that the managers be informed in advance. The advantage of this change was that the managers gave a list of the main questions to the frontline workers, giving them a chance to consider some of their answers. This led, overall, to richer discussion during the rounds.

The concern that lack of spontaneity would lead to a more formal and less comfortable interaction during the rounds was not substantiated.

The database of information elicited during the rounds continues to be refined. First, additional fields were added for each event, such as VP responsible, date of action plan, and status reports. In addition, the classification schemes have been modified. The initial framework for the classification of contributing factors was based on Vincent's "Sub-Components Underpinning the Framework of Factors Influencing Clinical Practices" (Table 3, p 24).[12] As WalkRounds™ have progressed, we have considered other classification and prioritization schemes, including those developed by the Veterans Administration (VA)[17] and others based on Failure Mode and Effect Analysis (FMEA).[17–18] Vincent's categorization system has proven quite valuable at an executive level, and we believe, but have not yet proven, that executive decisions will change on the basis of this classification. However, this kind of general classification system appears to be less valuable to frontline managers and operations VP, who require specific analyses to deal with very specific local problems. This stems in part from frontline managers' limited ability to individually address issues endemic to a system. For example, "poor equipment flow" was a helpful contributing factor if the equipment was specific to a particular unit, but if this factor was perceived as a systemwide issue of materials management, it was too large an issue for a single manager. For this group, we are using a listing that provides more of the detail of the events discussed (along with suggested improvements) to facilitate improvement activities.

The way in which WalkRounds™ are prioritized has also been modified. Initially, we created scores on the basis of the severity and frequency of the events discussed on rounds. We decided to change the scoring to refer to the frequency of the event in general, since often things that came up rarely on rounds were described as common occurrences. We are currently in the process of using a modified severity assessment code (SAC) score, adapted from the VA.[17]

The prioritization of events was intended to help focus limited quality resources on the problems with the highest severity and frequency ratings. Yet

Table 3. Factors Influencing Clinical Practices, with Subcomponents and Examples*

1. Organizational and Management Factors Components

    A. Organizational Structure—Hierarchical arrangement of staff

    B. Policy, Standards and Goals—Mission statement and objectives

    C. Risks Imported/Exported

    D. Safety Culture—Is invoked via the other organizational processes for all staff?

    E. Financial Resources and Constraints

2. Work Environment Components

    A. Administration—Ease of running and review of general administration

    B. Building and Design—Maintenance management

    C. Environment—Control of the physical environment (eg, temp, light)

    D. Equipment/Supplies—Malfunction/failure/reliability

    E. Staffing—Unavailability

    F. Education and Training—Management's influence on training

    G. Workload/Hours of Work—Optimal workload (neither too high nor too low)

    H. Time Factors—Delays

3. Team Components

    A. Verbal Communication—Communication between junior and senior staff

    B. Written Communication—Incomplete/absent information (eg, test results)

    C. Supervision and Seeking Help—Availability of senior staff

    D. Congruence/Consistency—Similar definition of tasks between professions

    E. Leadership and Responsibility—Clear definitions of responsibility

    F. Staff Colleagues' Response to Incidents—Support by peers after incidents

4. Individual (Staff) Components

    A. Competence Verification of Skills and Knowledge

    B. Skills and Knowledge

    C. Physical and Mental Stressors—Mental stressors (eg, the effects of workload, sickness, on the individuals mental state)

5. Task Components

    A. Availability and Use of Protocols—Procedures for reviewing and updating protocols

    B. Availability and Accuracy of Test Results—Tests not done

    C. Decision-Making Aids—The availability, use, and reliability of specific types of equipment

    D. Task Design—Can a specific task be completed by a trained member of staff in adequate time and correctly?

6. Patient Components

    A. Condition—Complexity

    B. Personal—Language

    C. Treatment—Known risks associated with treatment

    D. History—Medical, personal, emotional

    E. Staff–Patient Relationship—Good working relationship

*Based on Vincent's four categories of components—teamwork, hardware, individual, and patient components (Vincent C: Framework for analyzing risk and safety in clinical medicine. *BMJ* 316:1154–1157, 1998).

experience has shown that individuals' responses to the events appear to differ, depending on whether the problems are local or large and thematic in scope. Local problems are addressed mostly on the basis of ease of implementing change rather than on their frequency and severity, which has been true of thematic issues.

We found that the monthly summary report of events identified during WalkRounds™ was inadequate in and of itself to spur leadership to embrace changes to address the issues, so the patient safety personnel began to add suggested action items. They also consolidated the report with action items from other data sources, particularly root cause analyses, so that leaders would have one report outlining all the safety-related projects for which they were responsible. Finally, the patient safety manager meets individually with appropriate VPs or chiefs to review the list and assist with project initiation.

We are also considering how to measure the success of an intervention. In addition to presenting the action items and priority scores to the responsible VPs, we plan to send the same list, along with the contributing factors, to the senior leadership on a quarterly basis. We feel that the senior executives are in a better position to understand the issues from a systems perspective and would need to see the contributing factors from a more global perspective. The goal is to maximally use the data to identify areas of greatest risk and focus action in those areas.

Discussion

Implementation of WalkRounds™ appears to be straightforward once individuals understand the concepts. It is essential for executives to develop knowledge of safety principles and to be firm believers in the benefits of the rounds. Executives with clinical backgrounds appeared to have different learning curves than those with backgrounds in business or finance. Certainly each executive brings different strengths to the rounds. Those with expertise in clinical domains are able to elicit information about medical events easily, whereas those with business and financial backgrounds concentrate more on hospital processes. Each executive brings insight specific to his or her domain. For example, the chief nursing officer knew of many nursing-based initiatives and could relate them to problems being discussed during rounds. The chief operating officer referred to the number of open positions in the institution and efforts being made to fill them.

The objectives of WalkRounds™ are not necessarily intuitive and must be reiterated on a regular basis—especially to executives. For example, although one objective is to elicit new information, it is more important to show the frontline staff that executives are invested and interested in safety problems and issues and that they will intervene and follow up as necessary. In addition, the educational component of WalkRounds™ is essential for disseminating the concepts of patient safety and a systems approach to error. We believe that participation in WalkRounds™ is educational in and of itself, but every hospital will need to provide educational programs that cover cognitive psychology, how we make errors, sociology, ethics, team functioning, and human factors, which can be only briefly discussed in a WalkRounds™ setting.

The rounds require not only knowledgeable and invested senior leadership but also a well-organized support structure. Quality and safety personnel are needed to collect data and maintain a database of confidential information, evaluate the data from a systems approach, and delineate systems-based actions to improve care delivery. The rounds themselves may take only an hour per week, but effective coordination of the rounds and analysis of the data and feedback to the frontline staff are time-consuming and require dedicated resources.

Thematic issues come up continuously in varying ways during the WalkRounds™. Problems of the magnitude of the shortage of nurses and pharmacists usually require large-scale efforts beyond the local facility's resources. An executive who hears about this kind of issue during rounds—often over and over again every week—should respond by reminding other rounds participants of the limitations facing the system, seek out ideas for improvement, and discuss efforts that are under way to address them.

BWH's experience suggests that participating in WalkRounds™ helps executives witness the effects of budgetary decisions on actual operations. The concept of latent factors, in which decisions made at the "blunt," or administrative, end of care may lead to events of harm to patients,[7(p 15)] becomes more real for them. Seeing the direct effects of actions, as opposed to discussing them in the abstract, can constitute a powerful inducement to change.

The Patient Safety Leadership WalkRounds™ have become an integral part of the quality and patient safety agendas at BWH. Further research is necessary on the interface between those who report information and those who analyze the reported data. Frontline providers, the reporters of events, have domain expertise but usually do not have the perspective to relate an event to the system, nor do they have the training to suggest appropriate actions. Analysts have human factors and patient safety expertise and can identify many systems factors but may be limited by lack of domain expertise. In essence, reporters report and analysts analyze, but both are slightly handicapped. How should questions be phrased to help frontline providers give the best, most in-depth answers that facilitate analysis and identify potential appropriate action?

We are planning to study WalkRounds™ in ten additional Massachusetts hospitals, with an additional focus on its impact on medical students and nursing students. In addition, we plan to use surveys to measure the impact of these rounds on cultural change. Furthermore, we hope over time to be able to include patients in these rounds to make sure that their concerns are also heard. In the interim, we share the WalkRounds™ data and action items with our patient and family relations representatives, so the information can be conveyed to patients when appropriate.

Summary and Conclusions

We have been able to implement weekly Patient Safety Leadership WalkRounds™, with active involvement of senior leadership, safety and quality leadership, and our staff. In addition, we have created a process to ensure that actions are discussed and acted on, with appropriate feedback given to staff. Comments of frontline clinicians and executives suggest that WalkRounds™ help educate leadership and frontline staff in patient safety concepts and will lead to cultural changes, as manifested in more open discussion of adverse events and an improved rate of safety-based changes. We hope to prove this with more rigorous evaluation of WalkRounds™ as it spreads to other institutions. **J**

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